

# cifX for Fieldbus reduced to the maximum

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## PC-Card & netX

### Description

Fieldbus technology with its various standards is an established technology and will assert itself for many years beside the upcoming Real-Time systems. With experience in fieldbus technology based on 15 years and more than fifty thousands sold PC cards Hilscher introduces the next generation of communication interfaces: cifX cards. These are based on the high integrated netX 100 network controller and only differ among each other regarding the physical interface, provide maximum performance, functionality and flexibility for a fair price. A ten-year commitment of availability is guaranteed by the usage of the own network controller for the function defining part.

### Highlights

- One PC Card that runs Master and Slave Protocols
- Data Exchange via Dual-Port Memory (DPM)
- Unified User Interface for Various Protocols
- PCI, PCI Express, CompactPCI or Mini PCI
- Ten-year Commitment of Availability
- SYCON.net Configuration Tool based on FDT/DTM Technology



The protocols for cifX are delivered as loadable firmware on the provided CD. The driver loads the firmware into the cifX during system start-up. This approach provides a simple way to use the card as master or slave. A license is required for master applications. The license can be purchased with the cifX or later on and is stored on the card.

# cifX for Fieldbus

## Technical Information

### Headquarters

**Germany**  
Hilscher Gesellschaft für Systemautomation mbH  
Rheinstrasse 15  
65795 Hattersheim  
Phone: +49 (0) 6190 9907-0  
Fax: +49 (0) 6190 9907-50  
E-Mail: [info@hilscher.com](mailto:info@hilscher.com)  
Web: [www.hilscher.com](http://www.hilscher.com)

### Subsidiaries

**China**  
Hilscher Ges.f.Systemaut. mbH  
Shanghai Representative Office  
200010 Shanghai  
Phone: +86 (0) 21-6355-5161  
E-Mail: [info@hilscher.cn](mailto:info@hilscher.cn)

**France**  
Hilscher France S.a.r.l.  
69500 Bron  
Phone: +33 (0) 4 72 37 98 40  
E-Mail: [info@hilscher.fr](mailto:info@hilscher.fr)

**India**  
Hilscher India Pvt. Ltd.  
New Delhi - 110 025  
Phone: +91 9810269248  
E-Mail: [info@hilscher.in](mailto:info@hilscher.in)

**Italy**  
Hilscher Italia srl  
20090 Vimodrone (MI)  
Phone: +39 02 25007068  
E-Mail: [info@hilscher.it](mailto:info@hilscher.it)

**Japan**  
Hilscher Japan KK  
Tokyo, 160-0022  
Phone: +81 (0) 3-5362-0521  
E-Mail: [info@hilscher.jp](mailto:info@hilscher.jp)

**Switzerland**  
Hilscher Swiss GmbH  
4500 Solothurn  
Phone: +41 (0) 32 623 6633  
E-Mail: [info@hilscher.ch](mailto:info@hilscher.ch)

**USA**  
Hilscher North America, Inc.  
Lisle, IL 60532  
Phone: +1 630-505-5301  
E-Mail: [info@hilscher.us](mailto:info@hilscher.us)

### Distributors

**Australia**  
Fieldbus Specialists  
[www.fieldbus.com.au](http://www.fieldbus.com.au)

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[www.vipa.at](http://www.vipa.at)

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[www.novatronicistemas.com](http://www.novatronicistemas.com)

**Sweden**  
Novotek Sverige AB  
[www.novotek.se](http://www.novotek.se)

**UK**  
Miles Industrial Electronics Ltd  
[www.milesie.co.uk](http://www.milesie.co.uk)



## Protocol

CANopen	Slave
Cyclic Data	max. 1024 Bytes
Acyclic Kommunikation	SDO Up- and Download
Functions	Emergency (Producer) Node Guarding/Life Guarding, Heartbeat PDO Mapping NMT Slave SYNC Protocol (Consumer)
PDO Communication	synchronized, remotely requested and event driven (change of date); max. 64 RxPDO, max. 64 TxPDO

CANopen	Master
Cyclic Data	max. 7168 Bytes
Slaves	max. 126
Acyclic Kommunikation	SDO Up- and Download, max. 200 Bytes per Request
Functions	Emergency (Consumer and Producer) Node Guarding/Life Guarding, Heartbeat PDO Mapping NMT Master SYNC Protocol (Producer) Simple Boot-up Process
PDO Communication	synchronized, remotely requested and event driven (change of date); max. 512 RxPDO, max. 512 TxPDO

DeviceNet	Slave
Cyclic Data	max. 510 Bytes
Acyclic Kommunikation	Get_Attribute_Single/All, Set_Attribute_Single/All max. 240 Bytes per Request
I/O Connections	Poll, Change-of-State, Cyclic, Bit-Strobe
Functions	Explicit Messaging, Fragmentation: Explicit and I/O

DeviceNet	Master
Cyclic Data	max. 7168 Bytes, max. 255 Bytes/Verbindung
Slaves	max. 63
Acyclic Kommunikation	Explicit Connection, Get_Attribute_Single/All, Set_Attribute_Single/All
I/O Connections to Slaves	Poll, Change-of-State, Cyclic, Bit-Strobe
Functions	Explicit Messaging, Fragmentation: Explicit and I/O UCMM supported

PROFIBUS	Slave
Cyclic Data	max. 488 Bytes (IOCR)
Acyclic Kommunikation	Read/Write, max. 240 Bytes/Telegram
Functions	max. 244 Bytes Configuration Data, max. 237 Bytes applicationspec. Parameter DP V1 Class 1: Read/Write/Alarm, DP V1 Class 2: Read/Write/DataTransport

PROFIBUS	Master
Cyclic Data	max. 7168 Bytes
Slaves	max. 125
Acyclic Kommunikation	Read/Write, max. 240 Bytes/Telegram
Functions	DP V1 Class 1: Read/Write/Alarm, DP V1 Class 2: Initiate/Read/Write/Abort

*Note: The protocols are delivered as loadable Firmware on the provided CD.*

## Technical Data

Product	System Interface	Operating Voltage	Operating Temperature	Dimensions (L x W x H)
CIFX 50-DP	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	120 x 72 x 18 mm
CIFX 50-CO	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	120 x 72 x 18 mm
CIFX 50-DN	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	120 x 72 x 18 mm
CIFX 50E-DP	PCI, Single-Lane Port	3,3 V / max. 800 mA	0 ... 55 °C	120 x 77 x 18 mm
CIFX 50E-CO	PCI, Single-Lane Port	3,3 V / max. 800 mA	0 ... 55 °C	120 x 77 x 18 mm
CIFX 50E-DN	PCI, Single-Lane Port	3,3 V / max. 800 mA	0 ... 55 °C	120 x 77 x 18 mm
CIFX 80-DP	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	160 x 100 x 20 mm
CIFX 80-CO	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	160 x 100 x 20 mm
CIFX 80-DN	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	160 x 100 x 20 mm
CIFX 90-DPIF	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	60 x 45 x 4,5 mm
CIFX 90-COIF	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	60 x 45 x 4,5 mm
CIFX 90-DNIF	PCI, 33 MHz DPM	3,3 V / max. 650 mA	0 ... 55 °C	60 x 45 x 4,5 mm

## Product Overview

Product	Part number	Description
CIFX 50-DP	1250.400	PCI Communication Interface netX for PROFIBUS - SubD female 9-pin
CIFX 50-CO	1250.500	PCI Communication Interface netX for CANopen - SubD male 9-pin
CIFX 50-DN	1250.510	PCI Communication Interface netX for DeviceNet - COMBICON 5-pin
CIFX 50E-DP	1251.410	PCI Express Communication Interface netX for PROFIBUS - SubD female 9-pin
CIFX 50E-CO	1251.500	PCI Express Communication Interface netX for CANopen - SubD male 9-pin
CIFX 50E-DN	1251.510	PCI Express Communication Interface netX for DeviceNet - COMBICON 5-pin
CIFX 80-DP	1280.410	CompactPCI Communication Interface netX for PROFIBUS - SubD female 9-pin
CIFX 80-CO	1280.500	CompactPCI Communication Interface netX for CANopen - SubD male 9-pin
CIFX 80-DN	1280.510	CompactPCI Communication Interface netX for DeviceNet - COMBICON 5-pin
CIFX 90-DPIF	1290.410	Mini PCI Communication Interface netX for PROFIBUS - Cable and AIFX-DP with SubD female 9-pin
CIFX 90-COIF	1290.500	Mini PCI Communication Interface netX for CANopen - Cable and AIFX-CO with SubD male 9-pin
CIFX 90-DNIF	1290.510	Mini PCI Communication Interface netX for DeviceNet - Cable and AIFX-DN with COMBICON 5-pin

Distribución: **ER-SOFT, S.A.** Email: [er@er-soft.com](mailto:er@er-soft.com), Tel: +34 916 408 408